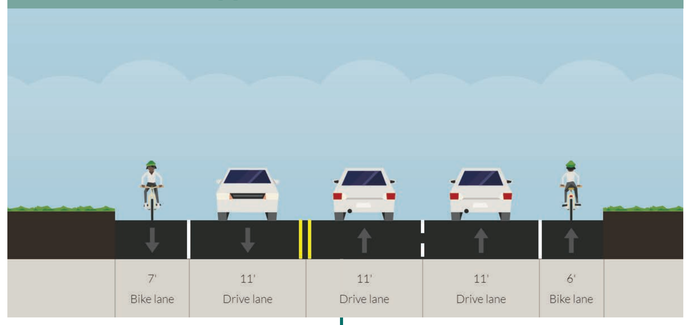
ALTERNATIVE 2 - Two Westbound & One Eastbound Travel Lanes, Bike Lanes

Seminary Road
Complete Streets Project

Description

- Maintain traffic flow while enhancing mobility, safety, and comfort for people walking and biking
- Preserve two westbound travel lanes, where traffic volumes are higher during rush hour
- One eastbound travel lane
- Bike lanes possible
- Pedestrian refuge islands and turn lanes may not be possible
- Upgrade and install new crosswalks where feasible

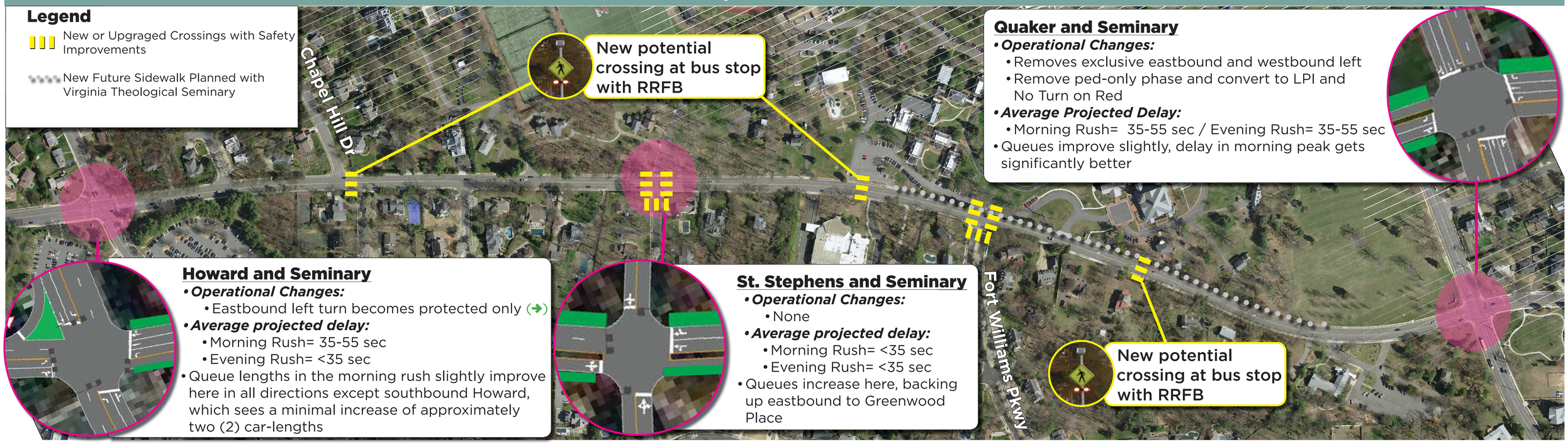
Typical Cross Section



Intersection Delay and Level of Service Grade

		EXISTING	ALTERNATIVE 2	
Intersection	Time of Day	Delay (sec)	Delay (sec)	Change (sec)
N Howard St & Seminary Rd	AM	36.8	37.5	*+0.7*
	PM	21.4	29.4	*+8.0*
St. Stephens Rd & Seminary Rd	AM	11.7	12.4	*+0.7*
	PM	8.1	13.2	*+5.1*
N Quaker Ln & Seminary Rd	AM	69.1	59.1	*-10.0*
	PM	53.2	42.9	*-10.3*

Corridor Map and Traffic Performance



Howard and Seminary

- ***Operational Changes:***
  - Eastbound left turn becomes protected only (➔)
- ***Average projected delay:***
  - Morning Rush= 35-55 sec
  - Evening Rush= <35 sec
- Queue lengths in the morning rush slightly improve here in all directions except southbound Howard, which sees a minimal increase of approximately two (2) car-lengths

St. Stephens and Seminary

- ***Operational Changes:***
  - None
- ***Average projected delay:***
  - Morning Rush= <35 sec
  - Evening Rush= <35 sec
- Queues increase here, backing up eastbound to Greenwood Place

Quaker and Seminary

- ***Operational Changes:***
  - Removes exclusive eastbound and westbound left
  - Remove ped-only phase and convert to LPI and No Turn on Red
- ***Average Projected Delay:***
  - Morning Rush= 35-55 sec / Evening Rush= 35-55 sec
- Queues improve slightly, delay in morning peak gets significantly better

Performance Assessment

Scoring

- Concepts were scored on a scale of 1 to 5 for each of the objectives for the project.
- One point is given for concepts that make no improvements or substantially worsen existing conditions.
- Five points are given for concepts that substantially improve conditions or fully preserve existing strengths of Seminary Road.

PERFORMANCE MEASURE	RATING
PEDESTRIAN SAFETY/COMFORT	●●●○○
FILLING THE SIDEWALK GAP	●●●○○
CONTROLLING SPEED	●●●○○
PREVENTING CRASHES	●●●○○
MINIMIZING VEHICLE DELAY	●●●●○
ADJACENT RESIDENT LIVABILITY	●●○○○
BICYCLIST SAFETY/COMFORT	●●●○○

Performance Details

- **Ped Safety/Comfort:** Reduces the number of through-lanes to be crossed, but median islands at uncontrolled crosswalks are unlikely.
- **Filling the sidewalk gap:** Space provided to a bike lane could be reapportioned to a long-term sidewalk and protected and marked for pedestrian use in the interim
- **Controlling Speed**: Provides a single through-lane for the eastbound direction, which would control speed, but two westbound lanes would still allow passing
- **Preventing car crashes:** Reduced lanes, especially eastbound, may provide some crash reduction benefits, but are unlikely to reduce angle, sideswipe, or rear-end crashes, especially in the westbound direction.
- **Minimizing vehicle delay:** This alternative provides the same lane distribution and signal operations as the existing conditions. Queue lengths stay the same, slightly improve over exiting conditions in most intersections, except for St. Stephens Road.
- **Adjacent resident livability**: Bike lanes provide more space than existing conditions for residents to pull in and out of driveways, but no turn pockets makes access to connecting streets more difficult
- **Bicycling Safety/Comfort:** Provides an unbuffered bicycle lane but is not a low-stress connection